

The Examiner contends that the Claim 31 contains the following Markush groups, and requires an election of one species from each group:

- (a) organic coatings, films, layers, or residues;
- (b) polymerized photoresists, paints, resins, single and multilayer organic polymers, organo-metallic complexes, positive optical photoresist, negative optical photoresist, electron-beam photoresists, X-ray photoresists, ion-beam photoresists, ion-implanted photoresists, and other hardened photoresists;
- (c) the group consisting of polyimides, copolyimides, polyamides, polyamide-imides, fluorinated polyimides, poly(arylenethers), fluorinated poly(arylenethers), perfluorinated alkylene oxides, parylene (N, C, D, or F type), poly(phenylquin-oxalines), polynaphthalene, poly-fluorinated naphthalene, benzocyclobutene (BCB), amorphous fluoropolymers; and
- (d) semiconductor devices and wafers, liquid crystal display devices, flat-panel displays, printed circuit boards, magnetic read/write heads, thin-film read/write heads.

The Examiner also requires an election between chemical or physical treatments for each of steps (b) and (e) of Claim 31.

Applicants hereby elect the following from Claim 31:

- (a) organic coatings;
- (b) hardened photoresists;
- (c) (nothing); and
- (d) semiconductor wafers.

Nothing is elected from Group (c), since that is a list of non-elected organic polymers.

Applicants also elect from process step (b): physical treatment; and
from process step (e): physical treatment.

The Examiner further requires that if physical (or chemical) treatment is elected, then a single disclosed species must be elected.

Accordingly, Applicants elect from process step (b): ultraviolet radiation; and
from process step (c) laser energy. e⁹

The Examiner further requires election of a single species for an additional (and simultaneous) treatment during solvent rinse between megasonic/ultrasonic energy, heat, UV radiation, and laser energy, as recited in Claim 14.

Applicants hereby elect megasonic/ultrasonic energy. If a further election is required. Applicants elect megasonic energy.

Finally, the Examiner requires election of a single species for an additional (and simultaneous) step during step (b) between chemically active process gases and vapors, chemically inert process gases, vaporized solvents, heat, UV radiation, and laser energy, as recited in Claim 20.

Applicants hereby elect chemically active process gases. If a further election is required. Applicants elect nitrous oxide.

Summarizing the elected species and the claims readable thereon:

(a) organic coatings:

Claims 31, 3-23, and 25-30;

(b) hardened photoresists;

Claims 31, 3-23, and 25-30;

(c) ---;

(d) semiconductor wafers:

Claims 31, 3, 4, 6-23, and 25-30;

process step (b): physical treatment - ultraviolet energy:

Claims 31 and 11;

process step (e): physical treatment - laser energy:

Claims 31 and 18;

additional and simultaneous treatment during solvent rinse - megasonic/ultrasonic energy (megasonic energy):

Claims 31 and 14;

? (additional and simultaneous step during step (b) - chemically active process gases (nitrous oxide):


Claims 31 and 20 (and 21).

Applicants understand that upon allowance of one or more generic claims, they will then be entitled to consideration of claims to additional species that are written in dependent form or otherwise include all of the limitations of an allowed generic claim.

The foregoing response is considered to be complete. Applicants look forward to receiving an action on the merits of the invention. If the Examiner has any questions, he is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
AHMAD (NMI) WALEH ET AL

November 2, 2001


David W. Collins
Attorney for Applicants
Registration No. 26,857

75 West Calle de las Tiendas
Suite 125B
Green Valley, AZ 85614

Telephone calls may be made to:
(520) 399-3203